INTRODUCTION

Introduction to algorithms for managing the common trauma patient

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It has been four years since I wrote an editorial in the *SAMJ*[1] relating to the problems of trauma in South Africa (SA). I was more optimistic, naïve perhaps, and looking for meaningful change. In the face of the daily carnage from road accidents and interpersonal violence, I asked, 'is 2011 the year we will stand up and do something?'[1] – apparently not. We continue to face the same onslaught, the same 1 200 deaths on our roads each month, and the same number of violent attacks of one man (it is usually men) on another human being.[2] Trauma is an epidemic and, as with any other epidemic, demands policy intervention, preventive measures and provision of care.

The factors that drive SA's levels of violence are complex and difficult to address. We have policies, but poor implementation. We know that prevention is better than cure and that prevention efforts are critical and must be supported at all levels. But prevention – real prevention – to bring us to 'acceptable' injury levels, will take years or even decades.

Globally, 4.8 million people die of trauma each year compared with 3.8 million who die of HIV/AIDS, tuberculosis (TB) and malaria combined. A single type of trauma – road injury – was the fifth leading global cause of death by 2013, ahead of HIV.[3] The myriad reasons behind the gross mismatch of disease burden and funding efforts are beyond the scope of this introduction, but perhaps we now see the first small steps towards normalisation. After reports such as that of the World Bank,[4] injury is finally being recognised as a problem: two key steps include the recommendations of the *Lancet* Surgical Commission,[5] and the World Health Organization (WHO)'s recent moves to appoint a lead for Emergency, Trauma and Acute Care and strengthen the Global Alliance for Care of the Injured.

In the meantime, in SA, better care of the injured must be a higher priority for a health system traditionally vertically orientated to HIV/AIDS and TB. Effective early care dramatically improves outcome, perhaps by as much as 45% for deaths and 36% for disability.[6] The need for effective trauma care cannot be more eloquently expressed than by Kobusingye *et al.*,[7] when 10 years ago they noted that 'Emergencies occur everywhere, and each day they consume resources regardless of whether there are systems capable of achieving good outcomes'. It is our responsibility – your responsibility – as front-line clinicians, to provide the best care we can for the victims of trauma.

Those of you facing injured patients in your clinical practice know that sources of advice for care come in many formats and from many sources, and that some are easier to use than others. In this edition of CME, John[8] provides simple flowchart-based algorithms to guide that care. His recommendations are in line with international and national guidelines, easy to follow, and – with the exception of a small number of advanced imaging requirements – implementable at all levels of care. We may not be making much impact on the numbers of injured patients that we see daily, but we can impact on the care they receive.

1. Wallis LA. Trauma care in South Africa – a call to arms. S Afr Med J 2011;101(3):171.
2. Statistics South Africa. http://www.statssa.gov.za/publications/P03093/P030932013.pdf (accessed 18 May 2015).
3. GBD 2013 Mortality and Causes of Death Collaborators. Global, regional, and national age-sex specific all-cause and cause-specific mortality for 240 causes of death, 1990-2013: A systematic analysis for the Global Burden of Disease Study 2013. Lancet 2015; 385:117-171. [http://dx.doi.org/10.1016/S0140-6736(14)61682-2]
4. Marquez PV, Farrington JL. The Challenge of Non-Communicable Diseases and Road Traffic Injuries in Sub-Saharan Africa. An Overview. Washington, DC: The World Bank, 2013.
5. Meara JG, Leather AJM, Hagander L, et al. Global surgery 2030: Evidence and solutions for achieving health, welfare, and economic development. Lancet 21 April 2015. [Epub ahead of print] [http://dx.doi.org/10.1016/S0140-6736(15)60160-X]
6. Jamison D, Breman JG, Measham AR, et al., eds. Disease Control Priorities in Developing Countries. 2nd ed. Washington, DC: World Bank, 2006. http://www.ncbi.nlm.nih.gov/books/NBK11728/ (accessed 15 November 2012).
7. Kobusingye OC, Hyder AA, Bishai D, et al. Emergency medical systems in low- and middle-income countries: Recommendations for action. Bull World Health Organ 2005;83(8):626-631.
8. John J. Algorithms for managing the common trauma patient. S Afr Med J 2015;105(6):502-507. [http://dx.doi.org/10.7196/SAMJ.9795]

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